

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthome, Governor Toni Hardesty, Director

March 18, 2005

Certified Mail No. 7000 0520 0016 0850 4301

Greg Hall Idaho Power Company P.O. Box 70 Boise, ID 83707

RE:

Facility ID No. 039-00024, Evander Andrews Power Complex, Mountain Home

Final Permit to Construct Letter

Dear Mr. Hall:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) Number P-040031 to the Idaho Power Co. for the Evander Andrews Power Complex in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your application materials received on September 30 and October 25, 2004. This permit is effective immediately and replaces your previous permit number 039- (P-010051) 00024, issued August 21, 2002. This permit does not release Idaho Power from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0437 to address any questions or concerns you may have with the enclosed permit.

Sincerely.

Martin Bauer, Administrator

Air Quality Division

Martin Ba

MB/BR/sd

Permit No. P-040031

**Enclosures** 



# Air Quality PERMIT TO CONSTRUCT

# State of Idaho Department of Environmental Quality

**PERMIT No.: P-040031** 

**FACILITY ID No: 039-00024** 

AOCR: 63

CLASS: A

SIC: 4911

ZONE: 11

UTM COORDINATE (km): 603.0, 4781.3

#### 1. PERMITTEE

Idaho Power Company

#### 2. PROJECT

**Evander Andrews Power Complex** 

3.	MAILING ADDRESS	CITY	STATE	ZIP
	1221 W. Idaho St.	Boise	ID	83702
4.	FACILITY CONTACT	TITLE	TELEPHONE	
	Greg Hall	Mechanical Engineer	(208) 388-2506	
5.	RESPONSIBLE OFFICIAL	TITLE	TELEPHONE	
	Darwin Pugmire	General Manager, Power Production	(208) 388-2553	
6.	EXACT PLANT LOCATION		COUNTY	
	1862 Mashburn Rd, Mountain Home, ID	83647	Elmore	

### 7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Electric power generation

#### 8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED:

March 18, 2005

# Acronyms, Units, and Chemical Nomenclature

AQCR Air Quality Control Region

cf/yr cubic feet per year

CEMS Continuous Emissions Monitoring System

CFR Code of Federal Regulations

CO carbon monoxide CO2 carbon dioxide

DEO Department of Environmental Quality

dscf dry standard cubic feet

EPA U.S. Environmental Protection Agency

gr grain (1 lb = 7,000 grains)

hr/yr hours per any consecutive 12-month period

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

lb/MMBtu pounds per million British thermal units

km kilometer

MW megawatts

NO<sub>2</sub> nitrogen dioxide

NO<sub>3</sub> nitrogen oxides

NSPS New Source Performance Standards

O<sub>3</sub> ozone

PM particulate matter

PM<sub>2.5</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5

micrometers

PM<sub>10</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 10

micrometers

ppm parts per million by volume on a dry basis

RATA Relative Accuracy Test Audit

scf standard cubic feet

SIC Standard Industrial Classification

SO<sub>2</sub> sulfur dioxide

UTM Universal Transverse Mercator VOC volatile organic compounds

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031				
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Data Ternado	March 18, 2005
Location:	Mountain Home, Idaho	racinty in two 037-00024	1741C 135UCU.	William 16, 2005

#### 1. GENERATION STATION

#### 1.1. Project Description

Idaho Power Co. (Idaho Power) operates the Evander Andrews Power Complex. The generation station is a simple-cycle, electric generating facility. The generation station has a nominal generating capacity of about 90 MW. The facility includes up to two advanced Siemens-Westinghouse (S-W) 251B12A combustion turbine generators (turbines 2 and 3) and related ancillary facilities. The gas turbines will be fired only with natural gas. Ancillary units for the station include a diesel firewater pump and a natural gas-fired fuel heater.

#### **Emission Limits**

#### 1.2. NO<sub>X</sub> and CO Emissions

Emissions from gas turbines 2 and 3 combined shall not exceed 248 tons per year of NO<sub>x</sub> and 150 tons per year of CO, based on any consecutive 12-month period. The annual limits shall include emissions during startup, shutdown, and malfunction of the turbines.

# 1.3. NO, Emissions - NSPS

On and after the date the performance test required by 40 CFR 60.8 is completed, the owner or operator shall not cause to be discharged to the atmosphere from gas turbines 2 or 3, any gases which contain NO<sub>x</sub> in excess of 142 parts per million by volume on a dry basis (ppmvd) at 15% oxygen in accordance with 40 CFR 60.332(a)(1). Any emissions which exceed this standard as a result of startup and shutdown shall be addressed in accordance with Permit Condition 1.22.

# 1.4. PM Emissions - Fuel-burning Equipment

Emissions of PM from the natural gas-fuel heater shall not exceed 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when fired with natural gas in accordance with IDAPA 58.01.01.676.

#### 1.5. Visible Emissions

Visible emissions from any point of emission at the facility shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

# Operating Requirements

## 1.6. Fuel Sulfur Content - NSPS

No fuel containing sulfur in excess of 0.8% by weight shall be burned in the gas turbine in accordance with 40 CFR 60.333(b).

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031					
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005	
Location:	Mountain Home, Idaho				

#### 1.7. Fuel Type

The gas turbines shall be fired exclusively by pipeline natural gas.

#### 1.8. Individual Emissions Sources

Individual emissions sources at the Mountain Home Generation Station shall be operated in accordance with the following requirements:

- The natural gas heater shall not use more than 11,114,353 cf/yr of natural gas.
- The emergency fire water pump shall be operated only as an emergency fire water pump. This includes regular maintenance, testing, and emergency use. The annual hours of operation shall not exceed 50 hr/yr.

# Monitoring Requirements

## 1.9. NO, Monitoring

The permittee shall fully comply with all monitoring requirements established by 40 CFR 72.9(b). In particular, the permittee shall install, certify, operate, and maintain in accordance with all the requirements of 40 CFR 75, a NO<sub>x</sub> CEMS (consisting of a NO<sub>x</sub> pollutant concentration monitor and an O<sub>2</sub> or CO<sub>2</sub> diluent gas monitor) with the automated data acquisition and handling system for measuring and recording the NO<sub>x</sub> concentration (in ppm), O<sub>2</sub> or CO<sub>2</sub> concentration (in percent O<sub>2</sub> or CO<sub>2</sub>), and NO<sub>x</sub> emission rate (in tons per month and tons per year based on each consecutive 12-month period) discharged to the atmosphere from each gas turbine stack.

The permittee shall fully comply with all recordkeeping requirements set forth in 40 CFR 75, Subpart F. All records shall be made available to DEQ representatives upon request.

## 1.10. NOx Monitoring - NSPS

In accordance with 40 CFR 60.334(c), the permittee may, for purposes of determining if the emission standard specified in Permit Condition 1.3 is exceeded, use a NO<sub>x</sub> CEMS that meets the requirements of 40 CFR 60.334(b).

#### 1.11. CO RATA - NSPS

For each gas turbine, within 60 days after achieving the maximum production rate at which the source will operate, but not later than 180 days after initial start-up, the permittee shall perform a RATA on the CEMS for CO. Beginning 12 months after the initial performance test, the permittee shall conduct a RATA on the CO CEMS. The initial RATA, and any subsequent RATAs conducted to demonstrate compliance, shall be performed in accordance with 40 CFR 60, Appendix F.

#### 1.12. CEMS Quality Assurance Procedures

Any CEMS data submitted to the EPA or DEQ shall meet the quality assurance procedures in 40 CFR 60, Appendix F.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031				
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005
Location:	Mountain Home, Idaho			

#### 1.13. Monitor Individual Emissions Sources

When in use, the permittee shall monitor and record the information below for each emission source listed in Permit Condition 1.8. All data shall be kept onsite for a minimum of two years and shall be made available to DEQ representatives upon request.

- The fuel consumption of the natural gas heater in cubic feet per month and cubic feet per any consecutive 12-month period (cf/yr).
- The time of operation of the emergency firewater pump in hours per year (hr/yr).

### 1.14. Fuel Monitoring - NSPS

The permittee shall monitor and record the total sulfur content of the fuel being fired in the turbine in accordance with 40 CFR 60.334(h)(1), except as provided in 40 CFR 60.334(h)(3).

- 1.14.1 In accordance with 40 CFR 60.334(h)(3), the permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
  - The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
  - Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.
- 1.14.2 With regard to the custom fuel monitoring schedule approved by the EPA in the July 10, 2002 letter addressed to the Idaho Power Company, the permittee may, without submitting a special petition to the Administrator, continue monitoring on this schedule in accordance with 40 CFR 60.334(h)(4). The following requirements are specified in this letter:
  - Nitrogen monitoring is waived for pipeline natural gas.
  - "40 CFR §60.335(d) requires analysis of sulfur in gaseous fuels in accordance with ASTM D 1072-80, D 3031-81, D 4084-82 or D 3246-91. However, EPA approves your request to use the monitoring requirements for sulfur at 40 CFR Part 75. This alternative monitoring method can only be used when pipeline quality natural gas is the only fuel being burned, and it must be in accordance with 40 CFR Part 75, Appendix D, Section 2.3."
  - "These EPA approvals do not alter any of the other requirements of NSPS Subparts A and GG
    which may apply to the facility."
  - In the event that the turbine would no longer have to comply with the Acid Rain Program, then this alternative monitoring plan would be void and Idaho Power would have to comply with the monitoring requirements specified in 40 CFR Part 60, Subpart GG.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031					
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005	
Location:	Mountain Home, Idaho	Facility 1D 146, 039-00024	Date 1996en:	Wiaicii 16, 2003	

1.14.3 The frequency of determining the sulfur content of the fuel shall be as specified in 40 CFR 60.334(i).

#### 1.15. General Provisions - NSPS

The permittee shall comply with the applicable NSPS General Provisions specified in 40 CFR Part 60, Subpart A.

#### REPORTING REQUIREMENTS

## 1.16. Test Protocols for NO, CEMS Certification/Recertification Tests

The permittee is strongly encouraged to submit to the DEQ a test protocol at least 30 days prior to the respective test date for each certification and recertification test of the NO<sub>x</sub> CEMS.

## 1.17. Required NO, CEMS Information

The permittee shall fully comply with the reporting requirements set forth in 40 CFR 75, Subpart G. In accordance with 40 CFR 75.60(b)(2), copies of all certification or recertification notifications, certification or recertification applications, and monitoring plans shall be submitted to DEQ. The copies shall be submitted to DEQ no later than the respective date specified in 40 CFR 75, Subpart G, for submission to the EPA Administrator.

In addition, the permittee shall submit to DEQ a written report (including all raw field data, etc.) for each certification or recertification test required by Permit Condition 1.9. Each report shall be submitted to DEQ within 60 days of the date on which the respective test was completed.

# 1.18. Required RATA Information

The results of any RATAs conducted for compliance shall be submitted to DEQ within 60 days of the completion of the test.

## 1.19. Performance Test Protocols

The permittee is strongly encouraged to submit a test protocol, for each performance test required in the monitoring section of this permit at least 30 days prior to the test date.

## 1.20. Performance Test Reports

The permittee shall submit a written report of the performance test results, as required in the monitoring section of this permit, to DEQ within 60 days of performing each respective test.

## 1.21. NO, CEMS Reports - NSPS

When a NO<sub>x</sub> CEMS is used per 40 CFR 60.334(c) to determine compliance with the emission standard in Permit Condition 1.3, the permittee shall submit to the EPA and DEQ an excess emissions and monitoring systems performance report and/or a summary report form for the NO<sub>x</sub> CEMS as specified in 40 CFR 60.7. For purposes of these reports, excess emissions are as defined in Permit Condition 1.22.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031				
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005
Location:	Mountain Home, Idaho			

## 1.22. Turbine Excess Emissions - NSPS

For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under 40 CFR Part 60 Subpart GG, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows in accordance with 40 CFR 60.334(j):

- 1.22.1 With regard to NO<sub>x</sub> for turbines using NO<sub>x</sub> and diluent CEMS, in accordance with 40 CFR 60.334(j)(1)(iii):
  - An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds 109 ppmvd at 15% oxygen [the applicable emission limit in 40 CFR 60.332(a)(1)]. For the purposes of this requirement, a "4-hour rolling average NO<sub>x</sub> concentration" is the arithmetic average of the average NO<sub>x</sub> concentration measured by the CEMS for a given hour (corrected to 15% O<sub>2</sub> and, if required under 40 CFR 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO<sub>x</sub> concentrations immediately preceding that unit operating hour.
  - A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO<sub>x</sub> concentration or diluent (or both).
  - Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of 40 CFR 60.335(b)(1).
  - The permittee may, for purposes of determining excess NOx emissions, use a CEMS that meets the requirements of 40 CFR 60.334(b), in accordance with 40 CFR 60.334(c).
- 1.22.2 With regard to SO<sub>2</sub>, in accordance with 40 CFR 60.334(j)(2)(i):

For samples of gaseous fuel obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

1.22.3 All reports required under 40 CFR 60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter in accordance with 40 CFR 60.334(j)(5).

#### 1.23. Other Exceedances

The permittee shall report each excess emissions event which occurs at the facility in accordance with IDAPA 58.01.01.130-136.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031					
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005	
Location:	Mountain Home, Idaho				

## 1.24. Reports and Certifications

All periodic reports and certifications required by this permit shall be submitted to DEQ within 60 days of the end of each specified reporting period unless specified otherwise in this permit. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130-136. Reports, certifications and notifications shall be submitted to the following:

Air Quality Permit Compliance Department of Environmental Quality Boise Regional Office 1445 N Orchard St. Boise, ID 83706-2239

In accordance with 40 CFR 60.4, all requests, reports, applications, submittals, and other communications to the EPA Administrator pursuant to 40 CFR 60 (NSPS) shall be submitted in duplicate to EPA Region 10 to the attention of the Director of the Office of Air Quality at the following address. Copies of all information required to be submitted to EPA for applicable NSPS requirements, shall also be submitted to DEQ.

EPA Region 10
Air Operating Permits, OAQ-107
1200 Sixth Ave.
Seattle, WA 98101

## 1.25. Permit Application Requirements

The permittee shall comply with the Acid Rain Permit requirements in accordance with 40 CFR 72.9(a) and 40 CFR Part 72, Subpart C.

# 1.26. Certification of Documents

All documents, including, but not limited to, records, monitoring data, supporting information, testing reports, or compliance certifications submitted to DEQ shall contain a certification by a responsible official in accordance with that IDAPA 58.01.01.123. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031					
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005	
Location:	Mountain Home, Idaho	-			

### 2. PERMIT TO CONSTRUCT GENERAL PROVISIONS

- 1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
- 2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
- 3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
  - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and
    conditions of this permit, to inspect any monitoring methods required in this permit, and require
    stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by
    the Director.
- 4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- 5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
  - Initiation of Construction Date
  - Completion/Cessation of Construction Date
  - Actual Production Startup Date
  - Initial Date of Achieving Maximum Production Rate Production Rate and Date
- 6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-040031					
Permittee:	Idaho Power Company Evander Andrews Power Complex	Facility ID No. 039-00024	Date Issued:	March 18, 2005	
Location:	Mountain Home, Idaho	Pacinty 115 110: 035-00024	Date issued.	141dich 16, 2003	

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

- 7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- 8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.